SEPA ENVIRONMENTAL CHECKLIST

UPDATED 2014

Purpose of checklist:

Governmental agencies use this checklist to help determine whether the environmental impacts of your proposal are significant. This information is also helpful to determine if available avoidance, minimization or compensatory mitigation measures will address the probable significant impacts or if an environmental impact statement will be prepared to further analyze the proposal.

Instructions for applicants: [help]

This environmental checklist asks you to describe some basic information about your proposal. Please answer each question accurately and carefully, to the best of your knowledge. You may need to consult with an agency specialist or private consultant for some questions. You may use "not applicable" or "does not apply" only when you can explain why it does not apply and not when the answer is unknown. You may also attach or incorporate by reference additional studies reports. Complete and accurate answers to these questions often avoid delays with the SEPA process as well as later in the decision-making process.

The checklist questions apply to all parts of your proposal, even if you plan to do them over a period of time or on different parcels of land. Attach any additional information that will help describe your proposal or its environmental effects. The agency to which you submit this checklist may ask you to explain your answers or provide additional information reasonably related to determining if there may be significant adverse impact.

Instructions for Lead Agencies:

Please adjust the format of this template as needed. Additional information may be necessary to evaluate the existing environment, all interrelated aspects of the proposal and an analysis of adverse impacts. The checklist is considered the first but not necessarily the only source of information needed to make an adequate threshold determination. Once a threshold determination is made, the lead agency is responsible for the completeness and accuracy of the checklist and other supporting documents.

Use of checklist for nonproject proposals: [help]

For nonproject proposals (such as ordinances, regulations, plans and programs), complete the applicable parts of sections A and B plus the SUPPLEMENTAL SHEET FOR NONPROJECT ACTIONS (part D). Please completely answer all questions that apply and note that the words "project," "applicant," and "property or site" should be read as "proposal," "proponent," and "affected geographic area," respectively. The lead agency may exclude (for non-projects) questions in Part B - Environmental Elements –that do not contribute meaningfully to the analysis of the proposal.

A. background [help]

1. Name of proposed project, if applicable: [help]

Oak Creek Large Wood (LW) Replenishment/Aquatic/Riparian Enhancement Project

2. Name of applicant: [help]

Yakama Nation (YN) through the Yakima/Klickitat Fisheries Program (YKFP)

3. Address and phone number of applicant and contact person: [help]

Primary

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4. Date checklist prepared: [help]

June 24, 2014

5. Agency requesting checklist: [help]

WDFW

6. Proposed timing or schedule (including phasing, if applicable): [help]

The project will be implemented for up to five years, beginning in 2014.

7. Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain. [help]

The proposed project is relatively small in scale but will produce significant instream habitat benefits for federally threatened salmonid species. This proposal is referred to as "Phase One" because it is possible that more intensive methods for recruiting LW into Oak Creek will be needed in the future. This phase will serve as a benchmark for future restoration actions.

8. List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal. [help]

- **Forest Practices Application and Alternative Plan**
- **Stream Habitat Restoration Guidelines (Washington State Aquatic Habitat Guidelines Program 2004)**
- **Design Considerations for Large Woody Debris Placement in Stream Enhancement Projects (Hilderbrand et al 1998 North American Journal of Fisheries Management 18: 161-167)**
- **Haring, D. 2001. Habitat limiting factors: Yakima River watershed water resource inventory areas 37-39, final report. Washington State Conservation Commission.**
- **Oregon Department of Forestry/Oregon Department of Fish & Wildlife. 2010. Guide to Placement of Wood, Boulders and Gravel for Habitat Restoration**
- **US Forest Service. 1997. Oak Creek Watershed Analysis. Naches Ranger District. Wenatchee National Forest.**
- **Yakima Basin Fish & Wildlife Recovery Board. 2009. Yakima Steelhead Recovery Plan. Extracted from the 2005 Yakima Subbasin Salmon Recovery Plan with Updates.**
- **Yakima River Steelhead Radio Telemetry Study. Yakama Nation - Yakima/Klickitat Fisheries Project**

9. Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain. [help]

None

10. List any government approvals or permits that will be needed for your proposal, if known. [help]

- **SEPA Determination-WDFW**
- **Forest Practices Permit/ Hydraulic Project Approval – WDNR**
- **Endangered Species Act– Programmatic Section 7 Consultation - Habitat Improvement Program (HIP)/Biological Opinion III (HIP BO III). US Department of Energy – Bonneville Power Administration – National Marine Fisheries Service (NMFS) and US Fish and Wildlife Service (USFWS).**

11. Give brief, complete description of your proposal, including the proposed uses and the size of the project and site. There are several questions later in this checklist that ask you to describe certain aspects of your proposal. You do not need to repeat those answers on this page. (Lead agencies may modify this form to include additional specific information on project description.) [help]

Oak Creek Large Wood (LW) Replenishment/Aquatic/Riparian Enhancement Project

The YKFP proposal for Oak Creek has identified three stream reaches for wood replenishment and riparian enhancement (Attachment A). Reach 1 spans approximately one mile upstream from SR 12. Reach 1 has been impacted by fire, and exhibits significant down cutting and bank erosion. Reach 2 is a floodplain reach directly upstream of Reach 1. Oak Creek in Reach 2 is disconnected from its floodplain due to down cutting and the riparian area has been negatively impacted by dispersed recreation. Reach 3 is approximately 1 mile upstream from Reach 2 (confluence with Hoover Canyon). Oak Creek in Reach 3 is also disconnected from its floodplain due to down cutting and the riparian area has been negatively impacted by dispersed recreation.

The YKFP, in collaboration with WDFW and TNC have identified numerous areas of source wood (Attachment B) for wood replenishment in the three identified reaches. There are two small areas of overstocked timber adjacent to Reach 3 that will be low impact harvested by a Washington Conservation Crew (WCC). There are a number of slash piles and root wads up Road 216 that will be utilized. The off-site areas upstream were identified by WDFW/TNC as part of the larger forest health component. The off-site areas are road adjacent and can be selectively logged by the WCC and trailered down to the treatment reaches.

Total stream length proposed for wood replenishment is approximately 3 miles. A generous estimate would require 1,500 to 2,500 logs to be placed in the channel. After wood replenishment, disturbed banks would be re-vegetated, and some of the dispersed camping sites would be moved back from the stream bank with large boulders. All wood placements will be consistent with the

Oregon State Guide to Placement of Wood, Boulders and Gravel for Habitat Restoration (2010). Post wood replenishment, live staking of disturbed/un-vegetated areas will occur.

The YKFP will be conducting a habitat survey of the proposed reaches in the spring of 2014 to establish a baseline, and monitor the project over time. The proposed project will span 3 to 5 years in order to monitor wood movement and habitat formation.

Background

Habitat Condition

Presence of off-channel habitat is rated as at-risk in the lower segments of Oak Creek due to down cutting of the stream, as properly functioning in the middle portion where beaver activity has created high-quality rearing habitat, and as not properly functioning in the upper segments where the 1400 Road constricts the floodplain. Significant stream bank erosion is occurring in the lower segments of Oak Creek, where the stream is down cutting, exposing raw stream banks (Haring 2001).

The six reaches of Oak Creek assessed by the USFS (1997) do not meet the USFS Forest Plan standard of 100 pieces of LWD (Large Woody Debris) per mile. There are several areas along Oak Creek where riparian condition is comprised of dense stands of small grand fir or clearcuts, which will not produce LW >12" diameter for 20-50 years. None of the reaches of Oak Creek assessed by the USFS (1997) meets the pool frequency or pool quality standards of the National Marine Fisheries Service (NMFS) or the USFS Forest Plan.

Riparian Condition

Forested areas of the watershed would be expected to have >70% canopy closure (USFS 1997). Eighteen percent or less of the stream lengths in Oak Creek, Indian Creek, and NF Oak Creek meet or exceed the expected 70% canopy closure level. The mainstem Oak Creek only has 6.4 miles of riparian canopy closure greater than 70%, and approximately 84% of the total length of Oak Creek has a road within 300 feet. All of the six reaches of Oak Creek assessed by the USFS (1997) are transport segments, except for segments 10 and 40, which are response/transport segments. Segment 10 is between the NF Oak Creek and Hoover Canyon, and at the upstream end of the proposed project. Segment 40 is upstream of FR 232, where a natural dam and lake once formed. Segment 10 is functioning primarily as a transport segment because it is significantly down cut and is not using its flood plain, except at very high flows.

Water Quality

Water temperatures in tributaries to Oak Creek meet the state water quality standard of 16° C for most of the summer months with occasional periods of exceedance at most of the sites measured (USFS 1997). Maximum temperatures in mainstem Oak Creek near the USFS boundary exceeded

the 16° C standard for most of the mid-July/August 1996 measurement period, when the maximum seven day average of daily maximum temperatures was 19.9° C (USFS 1997).

The lower reaches of Oak Creek have been measured by the USFS and the Yakama Nation to well exceed the 16° C maximum daily temperature and the maximum seven-day average temperatures. A maximum daily temperature of 24.5° C, and maximum seven-day average temperature of 23.1° C have been recorded. These temperatures are known to be lethal to aquatic life, including steelhead fry.

Water temperatures are affected by removal of riparian shading due to timber harvest and road locations, and are also elevated due to the percentage of non-forested area and relatively low elevations in the watershed (USFS 1997).

The following ranked salmonid habitat restoration actions are recommended for Oak Creek (Haring 2001):

1. **Correct identified fish passage barriers;**
2. **Remove/relocate remaining roads that are located within the floodplain, where practicable;**
3. **Restore riparian function; encourage reestablishment of large conifers in riparian zone**
4. **Develop and implement a short-term LWD strategy to provide LWD presence and habitat diversity until riparian function is restored;**
5. **Restore and maintain hydrologic mature condition in forested portion of watershed.**

The USFS (1997) identified aquatic habitat, water quality, reduced channel complexity, and water temperature as major issues in the Oak Creek watershed. In Oak Creek, specific factors influencing these major issues include a lack of streamside vegetation, a lack of large woody debris, and channelization due to riparian road locations. The USFS (1997) identified the following management strategies:

- **Restore riparian vegetation in order to provide bank stability and future source of LWD;**
- **Improve dispersed recreation sites in riparian zones;**
- **Install barriers to keep traffic back from stream banks;**
- **Identify opportunities to restore riparian vegetation;**
- **Use barriers to keep vehicle traffic back from stream banks;**
- **Plant native shrubs, trees, and seed;**
- **Sign areas to educate public about restoration**

The Yakima Steelhead Recovery Plan (2009) stated that The Oak Creek is the only portion of the Tieton system that has been confirmed as supporting steelhead spawning. Much of the lower watershed (especially the riparian zone) has burned in recent wildfires and would benefit from replanting and weed control. Possibilities to improve instream and floodplain habitat and address road impacts should also be evaluated. The Yakima Steelhead Recovery Plan (2009) also stated that impacts of recreational activities including dispersed camping and off-road vehicle (ORV) use

can be significant in sensitive riparian areas. Coordinated education, enforcement, and on-the-ground restoration and protection efforts should be maintained and/or expanded in areas with high recreational use.

The Yakima Steelhead Recovery Plan (2009) identified the following management strategies for Oak Creek:

- **Reduce dispersed recreation impacts;**
- **Restore riparian condition/future LWD recruitment;**
- **Improve water quality**
- **Improve upland watershed conditions**
- **Restore channel structure/complexity**

Steelhead Telemetry Study

The YKFP is currently conducting a steelhead telemetry study in the Yakima River Basin in order to refine Upper Yakima and Naches Spawning distributions (Frederiksen personal communication 2013). Initial results in 2012 identified 84 unique tags above the Wapatox diversion on the Naches River (3 Aerial surveys conducted 5/11, 5/24, 6/1, and foot/vehicle surveys conducted March – June). The biggest surprise in 2012 was 24 unique tags in the Tieton River (2 in Oak Creek). Previous studies assumed steelhead presence low in the Tieton due to a lack of spawning gravels due to flip-flop scour. While the study is only in its early phase, initial results show that steelhead use and spawning in the Tieton, including Oak Creek, is much higher than previously thought. Wildcat Creek is the only other tributary in the Tieton, below Rimrock Dam, with the potential for steelhead spawning.

Because of fire suppression and historic timber harvests, the adjacent upland coniferous forest has been transformed from a ponderosa pine forest to a ponderosa pine-true fir/douglas fir forest, with extremely high fuel loads. Where funding is available, forest managers are striving to shift the forest stand back to the historic pine stand by under story thinning and introduction of prescribed fire.

This project will selectively remove some of the fir tree component from approved areas, and relocate the trees into nearby stream reaches by manual "grip hoist", chainsaw and small tractor mounted skid winches. Trees will be recruited in full lengths where possible, which will provide maximum benefits to channel morphology and fish habitat while minimizing risks of movement of trees to downstream areas. Smaller, naturally-recruited woody material will rack against the larger, key pieces to expedite the natural process of log jam formation. The adjacent land is managed for fish and wildlife habitat.

The Washington Conservation Corps (WCC), and Yakama Nation Habitat staff will conduct all work. The WCC has experience using this method for instream habitat restoration.

References

Haring, D. 2001. Habitat limiting factors: Yakima River watershed water resource inventory areas 37-39, final report. Washington State Conservation Commission.

Oregon Department of Forestry/Oregon Department of Fish & Wildlife. 2010. Guide to Placement of Wood, Boulders and Gravel for Habitat Restoration

US Forest Service. 1997. Oak Creek Watershed Analysis. Naches Ranger District. Wenatchee National Forest.

Yakima Basin Fish & Wildlife Recovery Board. 2009. Yakima Steelhead Recovery Plan. Extracted from the 2005 Yakima Subbasin Salmon Recovery Plan with Updates.

Chris Frederiksen. YKFP Research Scientist. Personal communication 10/2013.

12. Location of the proposal. Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and section, township, and range, if known. If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographic map, if reasonably available. While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist. [help]

Oak Creek is a left bank tributary to the Tieton River, approximately 2.3 miles upstream of the confluence of the Tieton and Naches Rivers. Township 14, Range 16, Sections 4, 5, 6 WM. The project is approximately 5 miles west of the Town of Naches.

B. ENVIRONMENTAL ELEMENTS [help]

1. Earth

a. General description of the site [help]
(circle one): Flat, rolling, **hilly**, steep slopes, mountainous,
other _____

b. What is the steepest slope on the site (approximate percent slope)? [help]

No trees will be cut on slopes greater than 70%

c. What general types of soils are found on the site (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any agricultural land of long-term commercial significance and whether the proposal results in removing any of these soils. [help]

LOGY COBBLY SILT LOAM, 0 TO 5 PERCENT SLOPES
SIMCOE SILT LOAM, 5 TO 15 PERCENT SLOPES
WEIRMAN FINE SANDY LOAM

CLINT-RUBBLELAND COMPLEX, 8 TO 75 PERCENT SLOPES

d. Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe. [help]

The soils appear relatively stable, even on the steep slopes due to the density of vegetation. There are areas of erosion where the creek has removed the toe of the bank. These areas typically have LWD in the channel and seem to be natural processes.

e. Describe the purpose, type, total area, and approximate quantities and total affected area of any filling, excavation, and grading proposed. Indicate source of fill. [help]

None, there will be no filling or grading associated with this project.

f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe. [help]

Not likely to increase erosion because of the limited tree cutting and there will be no clearing or excavation. Roots and stumps will remain intact to maintain soil stability. There may be temporary and minor increases in erosion due to cabling the trees into place, but they these impacts will be minor and mitigated using best management practices.

g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)? [help]

There will be no new impervious surfaces associated with this project.

h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any: [help]

Ground disturbance will be minimized by using hand winches (grip hoist) and skid winches to manually place the logs; no heavy equipment will be used during project implementation. When working on ground that is not frozen or protected by snow, logs will be corduroyed into the creek. Impacts from pulling the trees into place should be minor, as trees will be selected from overstocked areas with no signs of soil instability. If erosion occurs in areas of disturbance, the crews will come in and repair those areas by placing woody material and building water bars. Some logs will be sourced from the road.

2. Air

a. What types of emissions to the air would result from the proposal during construction, operation, and maintenance when the project is completed? If any, generally describe and give approximate quantities if known. [help]

There will be minor emissions from chainsaws, small tractors, and pickups driving to the work sites. There will be no additional air emissions upon completion of the project.

b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe. [help]

None known

c. Proposed measures to reduce or control emissions or other impacts to air, if any: [help]

Chainsaws will only be on when in operation. Project personnel will carpool to the work areas as much as possible and vehicles will be turned off when not in use.

3. **Water**

a. Surface Water: [help]

1) Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe type
and provide names. If appropriate, state what stream or river it flows into. [help]

Yes, the trees will be placed across Oak Creek, a tributary to the Tieton River. In addition, there are several intermittent streams within the proposed project area.

2) Will the project require any work over, in, or adjacent to (within 200 feet) the described waters? If yes, please describe and attach available plans. [help]

Yes, trees will be placed directly in or across Oak Creek following recommendations for wood replenishment in the Washington Department of Fish and Wildlife's Stream Habitat Restoration Guidelines (2004) and the Oregon Department of Forestry/Oregon Department of Fish & Wildlife, 2010, Guide to Placement of Wood, Boulders and Gravel for Habitat Restoration. Habitat biologists will determine the exact LW placement in the field based on site conditions. Trees will not be sourced from the riparian buffer zone. Trees will be placed in locations where 1) sufficient densities of standing trees exist such that removal of some will only minimally impact stream shading; 2) where crews have available access points; and 3) at points in the stream where pool habitat as well as stream braiding will benefit fish and wildlife habitat as well as riparian and wetland function.

3) Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material. [help]

None, there will be no fill or dredge material associated with this project.

4) Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known. [help]

No

5) Does the proposal lie within a 100-year floodplain? If so, note location on the site plan. [help]

Yes, all of the trees will be placed within the 100-year floodplain of Oak Creek.

6) Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge. [help]

No, there may be minor increases in turbidity from walking across the stream and pulling trees into place, but are not expected to result in measurable impacts to water quality

b. Ground Water:

1) Will groundwater be withdrawn from a well for drinking water or other purposes? If so, give a general description of the well, proposed uses and approximate quantities withdrawn from the well. Will water be discharged to groundwater? Give general description, purpose, and approximate quantities if known. [help]

No

2) Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example: Domestic sewage; industrial, containing the following chemicals. . . ; agricultural; etc.). Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve. [help]

None, not applicable

c. Water runoff (including stormwater):

1) Describe the source of runoff (including storm water) and method of collection and disposal, if any (include quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe. [help]

This project is not likely to impact the amount or material associated with runoff, including storm water runoff events. Ground disturbance will be minimal and there will be no excavation or impervious surfaces that might impact runoff and/or storm water management.

2) Could waste materials enter ground or surface waters? If so, generally describe. [help]

There is a chance that petroleum products could leak from chainsaws or vehicles onto the ground. All equipment will be kept in good working condition to minimize this risk. Refueling will occur at least 150 feet away from the ordinary high water mark.

3) Does the proposal alter or otherwise affect drainage patterns in the vicinity of the site? If so, describe.

No.

d. Proposed measures to reduce or control surface, ground, and runoff water, and drainage pattern impacts, if any:

The project is planned to enhance habitat, and best management practices will be applied to eliminate negative impacts to water quality. There will be no heavy machinery near the streambanks or in wetland areas, there will be no excavation or ground disturbance, and there will be no addition of unnatural material. The project will simply jump start the natural processes associated with the recruitment of trees into the stream channel and the hydrologic changes that result from such LW structures being placed using hand tools. By increasing pool frequency and floodplain function, stream temperatures in Oak Creek will likely remain cooler during the warm, dry summer months.

4. **Plants** [help]

a. Check the types of vegetation found on the site: [help]

__X__ deciduous tree: **alder, maple, aspen**, other **cottonwood, oak**
__X__ evergreen tree: **fir**, cedar, **pine**, other

__X__ shrubs
__X__ grass
____ pasture
____ crop or grain
____ Orchards, vineyards or other permanent crops.
__X__ wet soil plants: cattail, **buttercup, bullrush**, skunk cabbage, other
____ water plants: water lily, eelgrass, milfoil, other
__X__ other types of vegetation

b. What kind and amount of vegetation will be removed or altered? [help]

Douglas fir and/or true fir trees will be cut down and placed into the creek at various locations throughout the 3-mile stretch of Oak Creek, as approved by WDNR under a Forest Practices Application and Alternate Plan. There will be some disturbance to shrubs and ground vegetation as the 6" to 24" diameter trees are pulled through the forest and into the creek.

c. List threatened and endangered species known to be on or near the site. [help]

Ute ladies'-tresses are federally listed as threatened, but are not known to be present in the Oak Creek watershed.

Wenatchee mountain checker mallow are federally and state listed as endangered, but are not known to be present in the Oak Creek watershed.

d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any: [help]

The addition of large wood to the creek channel will create new braided channels, thereby enhancing the wetland/riparian buffer around Oak Creek. Disturbed and/or un-vegetated areas will be live staked with native species.

e. List all noxious weeds and invasive species known to be on or near the site.

diffuse knapweed

5. **Animals**

a. List any birds and other animals which have been observed on or near the site or are known to be on or near the site. Examples include: [help]

birds: **hawk, heron, eagle, songbirds**, other: **owls**
mammals: **deer, bear, elk, beaver**, other: **small mammals**
fish: bass, **salmon, trout**, herring, shellfish, other **native minnows, suckers and sculpin**

b. List any threatened and endangered species known to be on or near the site. [help]

Mardon skipper-butterfly-State listed as Endangered
Bull trout-fish-Federally listed as Threatened, State listed as Candidate
MCR Steelhead-fish- Federally listed as Threatened, State listed as Candidate
Northern leopard frog-amphibian-State listed as Endangered
Bald eagle-bird-State listed as Threatened
Northern Spotted Owl-bird-Federally listed as Threatened, State listed as Endangered

Western gray squirrel-mammal-State listed as Threatened
Fisher-mammal- State listed as Endangered
Gray Wolf-mammal-Federally listed as Endangered, State listed as Endangered
Grizzly Bear-mammal-Federally listed as Threatened, State listed as Endangered
Canada Lynx-mammal-Federally listed as Threatened, State listed as Threatened

None of the above animals are likely to be negatively impacted due to implementation of this project.

The project is in the elk winter closure area and some work may occur during the closure period. However, the project will occur toward the very end of the closure period, well west of the feed sites where the elk are concentrated.

c. Is the site part of a migration route? If so, explain. [help]

Yes, Oak Creek supports steelhead that migrate through the project reaches to spawn. Additionally, migratory birds and mammals use the watershed for seasonal habitats. The surrounding public land ownership provides adequate habitat for a variety of animals throughout the year.

d. Proposed measures to preserve or enhance wildlife, if any: [help]

As proposed, the project will increase the amount of LW in the channel and will also increase the vigorous riparian thicket that is present along the streambanks, providing additional cover for many songbirds and other wildlife species. The increased pool frequency and channel complexity due to the LW will greatly enhance the instream habitat for threatened salmonids such as steelhead and bull trout. The project is designed as a habitat enhancement project and no long-term negative impacts to wildlife are anticipated.

e. List any invasive animal species known to be on or near the site.

California ground squirrels

6. Energy and natural resources

a. What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc. [help]

Upon completion, there will be no need for an energy source at the project site.

b. Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe. [help]

Not applicable; the project area is surrounded by public lands, unlikely to need solar energy capabilities. Regardless, the proposed project would not likely affect the potential use of solar energy.

c. What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any: [help]

Upon completion, there will be no consumptive uses of energy or natural resources. Most of the trees will be placed using manual winches and hand-held pulleys. Diesel tractors are fueled with a combination of diesel and bio-diesel.

7. **Environmental health**

a. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste, that could occur as a result of this proposal? If so, describe. [help]

There is a slight risk of fire caused by use of the chainsaws to fall the trees. The chainsaws also pose a potential risk of a petroleum spill during refueling or if the gas tank leaks. All equipment will be kept in good working condition to reduce the risks of a chemical spill or sparks causing a fire. Crews will meet DNR forest practice requirements for fire suppression equipment.

1) Describe any known or possible contamination at the site from present or past uses.

None known.

2) Describe existing hazardous chemicals/conditions that might affect project development and design. This includes underground hazardous liquid and gas transmission pipelines located within the project area and in the vicinity.

There are no existing hazardous chemicals/conditions in the project area.

3) Describe any toxic or hazardous chemicals that might be stored, used, or produced during the project's development or construction, or at any time during the operating life of the project.

Petroleum products for use in vehicles and equipment. All products will be stored in approved containers.

4) Describe special emergency services that might be required.

Due to the nature of the activity, there is a chance that emergency personnel such as EMT, fire fighters, and sheriff's deputies may need to respond to the project area during implementation.

5) Proposed measures to reduce or control environmental health hazards, if any:

All equipment using petroleum products will be in good working condition and kept away from the creek and creek bed as much as possible to prevent any contamination of the water.

b. **Noise**

1) What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)? [help]

None

2) What types and levels of noise would be created by or associated with the project on a short-term or a long-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from the site. [help]

The short-term noise associated with this project will include chainsaws and tree falling, small diesel tractors, as well as 2-5 additional vehicles bringing work crews to the project sites during implementation. Noise from pulling trees into the channel once they've been cut will be minor, consisting of breaking branches and crewmembers communicating over a distance up to 200 meters. There will be no long-term increase in noise due to this project.

3) Proposed measures to reduce or control noise impacts, if any: [help]

Chainsaws will be turned off when not in use and will only be used during normal working days during the daylight hours. Traffic noise will be reduced by carpooling as much as possible to the project sites.

8. Land and shoreline use

a. What is the current use of the site and adjacent properties? Will the proposal affect current land uses on nearby or adjacent properties? If so, describe. [help]

The property throughout the project area is owned and managed by Washington Department of Fish and Wildlife as part of the Oak Creek Wildlife Area.

b. Has the project site been used as working farmlands or working forest lands? If so, describe. How much agricultural or forest land of long-term commercial significance will be converted to other uses as a result of the proposal, if any? If resource lands have not been designated, how many acres in farmland or forest land tax status will be converted to nonfarm or nonforest use? [help]

There is an abandoned agricultural field to the south of Reach 3. Most of the project area is forested and prior to state ownership it was working forest lands. There will be no conversion of land as part of this project. All lands are in state ownership where PILT is paid by WDFW.

1) Will the proposal affect or be affected by surrounding working farm or forest land normal business operations, such as oversize equipment access, the application of pesticides, tilling, and harvesting? If so, how:

No

c. Describe any structures on the site. [help]

No structures.

d. Will any structures be demolished? If so, what? [help]

No

e. What is the current zoning classification of the site? [help]

Forest Watershed

f. What is the current comprehensive plan designation of the site? [help]

Forest Resource

g. If applicable, what is the current shoreline master program designation of the site? [help]

NA

h. Has any part of the site been classified as a critical area by the city or county? If so, specify. [help]

Yes, Oak Creek is a Type 2 stream under the Yakima County Critical Areas Ordinance. Oak Creek has a mapped 100-year floodplain. There is one mapped palustrine, forested wetland in Reach 3, just upstream of the confluence with Hoover Canyon. Additionally, the project area provides fish and wildlife habitat for several culturally and ecologically important species.

i. Approximately how many people would reside or work in the completed project? [help]

None

j. Approximately how many people would the completed project displace? [help]

None

k. Proposed measures to avoid or reduce displacement impacts, if any: [help]

NA

L. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any: [help]

In addition to completing the proper review and obtaining the appropriate authorizations from the state and local government, WDFW's Oak Creek Wildlife Area Manager and District 8 Team support the project. There will be no change to the existing land use because of this project.

m. Proposed measures to ensure the proposal is compatible with nearby agricultural and forest lands of long-term commercial significance, if any:

There is no agricultural in the area and the project will have no impact on forested lands.

9. **Housing**

a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing. [help]

None, not applicable

b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing. [help]

None, not applicable

c. Proposed measures to reduce or control housing impacts, if any: [help]

None, not applicable

10. **Aesthetics**

a. What is the tallest height of any proposed structure(s), not including antennas; what is the principal exterior building material(s) proposed? [help]

The tallest LW structure would not be likely to exceed six feet above the ordinary high water line.

b. What views in the immediate vicinity would be altered or obstructed? [help]

None, tree thinning is not likely to increase views because trees will only be cut in areas of dense vegetation and stream shading will not be reduced.

c. Proposed measures to reduce or control aesthetic impacts, if any: [help]

There will be no new human-made material associated with this project. The project is planned to expedite the natural processes of large wood recruitment into the creek and the associated hydrological changes with such structures. Using hand tools and maintaining a small project footprint will minimize ground disturbance.

11. **Light and glare**

a. What type of light or glare will the proposal produce? What time of day would it mainly occur? [help]

Not applicable.

b. Could light or glare from the finished project be a safety hazard or interfere with views? [help]

No

c. What existing off-site sources of light or glare may affect your proposal? [help]

None

d. Proposed measures to reduce or control light and glare impacts, if any: [help]

None, not applicable

12. **Recreation**

a. What designated and informal recreational opportunities are in the immediate vicinity? [help]

The project area is within public lands that are heavily used throughout most of the year. Hunters, anglers, hikers, birdwatchers, mountain bikers, and campers use the Oak Creek Wildlife Area and the Forest Service property upstream of the proposed project area throughout the year.

b. Would the proposed project displace any existing recreational uses? If so, describe. [help]

No, the project will have no long-term impact on the existing recreational users. Noise associated with project implementation may impact wildlife movement during the short-term. Project implementation will cease during modern firearm hunting seasons for deer and elk to ensure crewmember safety and fair hunting opportunities.

c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any: [help]

The project is proposed for implementation during the time when there will be the least environmental impacts and the least impacts on recreational uses.

13. **Historic and cultural preservation**

a. Are there any buildings, structures, or sites, located on or near the site that are over 45 years old listed in or eligible for listing in national, state, or local preservation registers located on or near the site? If so, specifically describe. [help]

None known. There is an abandoned agricultural field south of Oak Creek in reach 3. There are no visible structures.

b. Are there any landmarks, features, or other evidence of Indian or historic use or occupation? This may include human burials or old cemeteries. Are there any material evidence, artifacts, or areas of cultural importance on or near the site? Please list any professional studies conducted at the site to identify such resources. [help]

There is an abandoned agricultural field south of Oak Creek in reach 3. The area has evidence of homesteading with old orchard trees. No professional studies have been conducted in this area to date. The project area will be inspected by cultural resource staff with the Yakama Nation prior to

the start of work. In the areas identified for tree removal a cultural survery was contracted and completed by Central Washington University as part of the Oak Creek Forest Restoration Project. Sites were identified and ground disturbing activities will be avoided in those area.

c. Describe the methods used to assess the potential impacts to cultural and historic resources on or near the project site. Examples include consultation with tribes and the department of archeology and historic preservation, archaeological surveys, historic maps, GIS data, etc. [help]

This project is proposed by Yakama Nation and will be completed in consultation with their cultural resource staff. In addition WDFW's Archeologist will be consulted on the project.

d. Proposed measures to avoid, minimize, or compensate for loss, changes to, and disturbance to resources. Please include plans for the above and any permits that may be required.

Ground disturbance will be minimized during project implementation and a cultural resources specialist from the Yakama Nation will survey the area.

14. **Transportation**

a. Identify public streets and highways serving the site or affected geographic area and describe proposed access to the existing street system. Show on site plans, if any. [help]

Oak Creek Road (USFS 1400) is adjacent to Oak Creek throughout the project reach and it will be used to access each treatment area.

b. Is the site or affected geographic area currently served by public transit? If so, generally describe. If not, what is the approximate distance to the nearest transit stop? [help]

No, there is no public transit available in this remote area.

c. How many additional parking spaces would the completed project or non-project proposal have? How many would the project or proposal eliminate? [help]

None, not applicable

d. Will the proposal require any new or improvements to existing roads, streets, pedestrian, bicycle or state transportation facilities, not including driveways? If so, generally describe (indicate whether public or private). [help]

No. Treatment areas will be accessed through existing roadways and access points as much as possible. Some off road access may occur as approved by wildlife area manager.

e. Will the project or proposal use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe. [help]

No

f. How many vehicular trips per day would be generated by the completed project or proposal? If known, indicate when peak volumes would occur and what percentage of the volume would be trucks (such as commercial and nonpassenger vehicles). What data or transportation models were used to make these estimates? [help]

None, not applicable

g. Will the proposal interfere with, affect or be affected by the movement of agricultural and forest products on roads or streets in the area? If so, generally describe.

No

h. Proposed measures to reduce or control transportation impacts, if any: [help]

Not applicable

15. **Public services**

a. Would the project result in an increased need for public services (for example: fire protection, police protection, public transit, health care, schools, other)? If so, generally describe. [help]

No

b. Proposed measures to reduce or control direct impacts on public services, if any. [help]

Not applicable

16. **Utilities**

a. Circle utilities currently available at the site: [help]
electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic system, other _____

None

b. Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity which might be needed. [help]

None

C. Signature [HELP]

The above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.

Signature: _____

Name of signee Ross Huffman

Position and Agency/Organization Oak Creek WLA Manager/WDFW

Date Submitted: 7/8/14